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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/529,911	10/21/2005	Isao Watanabe	050156	5418
23850 7590 09/10/2008 KRATZ, QUINTOS & HANSON, LLP 1420 K Street, N.W. Suite 400 WASHINGTON, DC 20005				
EXAMINER				
HAUTH, GALEN H				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
09/10/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/529,911

Applicant(s)

WATANABE ET AL.

Examiner

GALEN HAUTH

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 11-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9 and 10 is/are rejected.
- 7) ☒ Claim(s) 4-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-850)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date 4/1/2005 7/18/2005 11/1/2006 1/23/2007 6/20/2007

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Claims 1-10 in the reply filed on 08/12/2008 is acknowledged. Claims 11-24 are withdrawn from consideration.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Ide et al. (JP 55045737, Derwent Abstract).

- a. With regards to claim 1, Ide teaches a binder composition that is curable at room temperature comprising a multifunctional phenol i.e. cresol, xylenol etc., a crosslinking agent in furfuryl alcohol, and a catalyst in an organic or inorganic acid (Derwent abstract).

- b. With regards to claim 2, Ide teaches using cresol and xylenol (Derwent abstract, dimethylphenol is xylenol)

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. Claims 1-3, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable by Albers (PN 4501832) in view of Gerber (5223554).

a. With regards to claim 1, Albers teaches an epoxy made from multifunctional phenols such as resorcinol and aldehydes such as formaldehyde which is a cross-linking agent (col 6 ln 53-60). Albers also teaches that phenols and aldehydes are reacted with acid catalysts to form novolac resins (col 7 ln 1-5). Albers does not explicitly state that the composition is curable without heat.

b. Gerber teaches that phenolic resol resins can be cured at room temperature with the aid of accelerators (col 3 ln 14-20). Gerber teaches that it was known in the art that novolac resins can have accelerators added as well (col 2 ln 8-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include curing accelerators as taught by Gerber in the composition taught by Albers to reduce energy needed to cure binders by removing the heating step required to cure the phenolic.

- c. With regards to claim 2, Albers teaches using resorcinol (col 6 ln 57).
- d. With regards to claim 3, Albers teaches using formaldehyde and acetaldehyde (col 6 ln 59).
- e. With regards to claims 9 and 10, Albers teaches forming a kit comprising two containers which contain an epoxy resin that is curable when the two containers are combined (col 3 ln 9-12). Albers teaches that the epoxy is a trifunctional or tetrafunctional phenol as in resorcinol reacted with a cross linking agent in formaldehyde (col 6 ln 53-60) and reacted with an acid catalyst (col 7 ln 3-5). Albers does not teach that the epoxy is divided in one container having solvent and phenol with the second having cross-linking agent, solvent, and catalyst or one container having solvent, catalyst, and phenol and the other having solvent and cross-linking agent; however, it would have been obvious to one of ordinary skill in the art at the time the invention was made to divide the reactants of Albers kit into a number of combinations between the two containers including those claimed above as Albers teaches separating reactants into two containers. Albers does not explicitly state that the composition is curable without heat.
- f. Gerber teaches that phenolic resol resins can be cured at room temperature with the aid of accelerators (col 3 ln 14-20). Gerber teaches that it was known in the art that novolac resins can have accelerators added as well (col 2 ln 8-15). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include curing accelerators as taught by

Gerber in the composition taught by Albers to reduce energy needed to cure binders by removing the heating step required to cure the phenolic.

Claim Objections

7. Claims 4-8 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot be dependent on another multiple dependent claim (claim 4 is a multiple dependent of claim 3 which is a multiple dependent and all the other claims depend on claim 4). See MPEP § 608.01(n). Accordingly, the claims 4-8 have not been further treated on the merits.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GALEN HAUTH whose telephone number is (571)270-5516. The examiner can normally be reached on Monday to Thursday 8:30am-5:00pm ET.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on (571)272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/GHH/

/Christina Johnson/
Supervisory Patent Examiner, Art Unit 1791